

Notice of Allowability

Application No.

10/673,362

Applicant(s)

JUENGLING ET AL.

Examiner

Art Unit

Walter L. Lindsay, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an RCE filed on 7/14/2005.
2. ☒ The allowed claim(s) is/are 22,23,25,27,28,30,33,70,71,74-81,84-86 and 92-100.
3. ☒ The drawings filed on 30 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

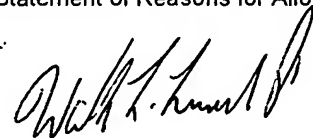
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |



DETAILED ACTION

This Office Action is in response to an Amendment filed on 1/28/2005.

Currently, claims 22, 23, 25, 27-28, 30, 33, 70-71, 74-81, 84-86 and new claims 92-100. Claims 1-21, 31-32, 34-69, 72-73, 82-83, and 87-91 are canceled.

Allowable Subject Matter

1. Claims 22, 23, 25, 27-28, 30, 33, 70-71, 74-81, 84-86 and 92-100 are allowed.
2. The following is an examiner's statement of reasons for allowance: the prior art, either singly or in combination fails to anticipate or render obvious, the limitations of:

...at least one channel implant region formed underneath said gate stack wherein said at least one insulating spacer defines at least in part the at least one channel implant region, wherein said channel implant region is narrower than the width of said gate stack, as required by claim 22;

...an insulating layer formed adjacent to said sidewall spacers, said insulating layer and sidewall spacers having etched out upper portions that define an area extending beyond a lateral width of said gate stack, as required by claim 70;

...second sidewall spacers provided over said conducting layer; and

at least one channel implant region formed underneath said gate stack, which is defined at least in part by said second sidewall spacers, wherein said at least one channel implant region is narrower in width than said gate stack, as required by claim 75;

... an insulating layer formed adjacent to said first sidewall spacers, that define an area extending beyond a lateral width of said gate stack;

a first channel implant region formed underneath said gate stack, which is defined at least in part by said area, as required by claim 80;

...first sidewall spacers provided adjacent to the sidewalls of said gate stack;

a first channel implant region formed underneath said gate stack, which is defined at least in part by said first sidewall spacers;

second sidewall spacers provided over said conducting layer, as required by claim 85; and

...a first set of spacers provided on each side of said gate stack with a second set of spacers provided over said conducting layer; and

a first channel implant region formed underneath said gate stack and in said semiconductor substrate, wherein the first set spacers or second set of spacers define at least in part the width of said channel implant region, as required by claim 92.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter L. Lindsay, Jr. whose telephone number is (571) 272-1674. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Lebentritt can be reached on (571) 272-1873. The fax phone


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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Walter L. Lindsay, Jr.
Examiner
Art Unit 2812

WLL


August 19, 2005